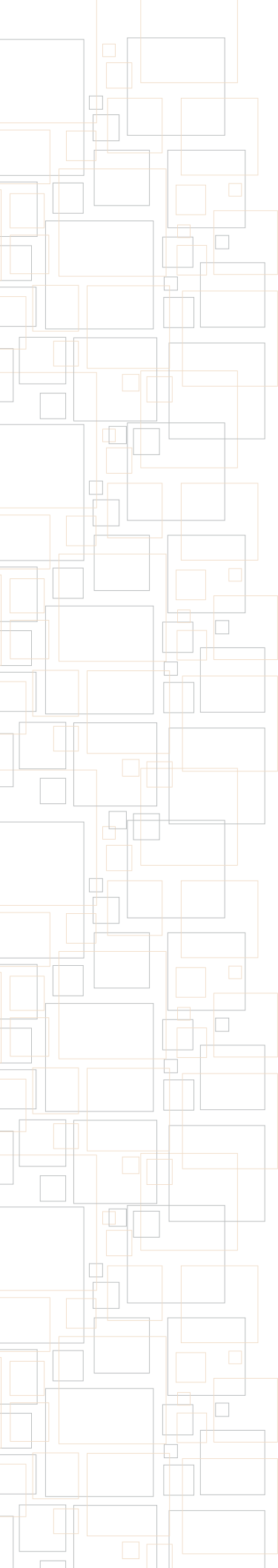


# KANSAS

## ALTERNATIVE ENERGY





As a traditional agricultural leader and a state blessed with tremendous natural resources, Kansas is positioned to be a forerunner in renewable energy production. Our state's central location and excellent transportation infrastructure provide convenient and economical access for wind energy and bioenergy operations. Ranked second in the nation for wind energy potential, Kansas has vast opportunities to expand the wind generation that can be produced in this state. In bioenergy, Kansas City is the nation's largest rail center by tonnage, handling the transportation and logistics of the nation's biomass for processing.

We're poised for the future with 15 operating biofuel facilities, with additional ethanol and biodiesel facilities on the horizon, including Abengoa Bioenergy's first commercial-scale hybrid biomass plant. Kansas ranks fourth in total biomass production, with companies benefiting from economical access to feedstock for bio-based fuels, as well as proximity to feedlots that serve as a market for the animal feed resulting from biofuel byproducts.

Kansas has an excellent solar rating, and international companies such as AGC Flat Glass, a world leader in the production of solar glass, have found the state an ideal location to serve the U.S. market. Strong workforce training and customized training programs assure solar equipment manufacturers and suppliers of an educated workforce.

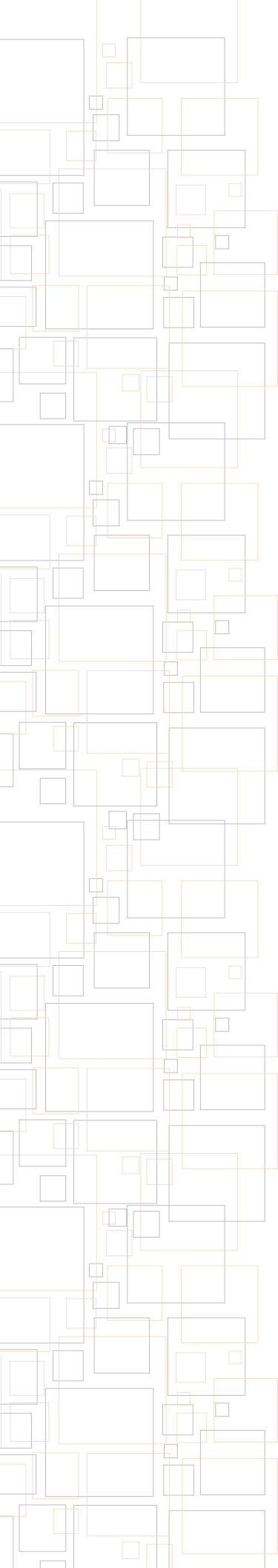
A supportive business climate, a diverse portfolio of financial incentives and a commitment to be a leader in alternative energy make Kansas an excellent choice for your business.

## WIND

Located in the heart of the nation's Wind Corridor, Kansas offers an ideal location for wind turbine manufacturing. Our central location and outstanding transportation infrastructure provide convenient and economical access to the regions with the greatest wind energy activity. Ranked second in the nation for wind energy potential, Kansas doubled its wind generation in 2012, reflecting \$3.0 billion in new investment with over 2,700 megawatts of wind generation in operation currently, with plenty of room for more. In fact, projections indicate that by 2030, the state's power system could provide 7,000 megawatts for export from wind energy each year. Kansas is committed to the growth of this industry through the development of additional wind farms and a strong supply chain.

Siemens Energy chose Kansas as the site of the company's new wind turbine production facility, citing the state's transportation advantages, pro-business climate and new financial incentives for wind manufacturing projects. A Kansas location offers companies in the wind supply chain ideal access to the new Siemens nacelle plant and numerous other manufacturers in the region. In fact, at least six major wind turbine manufacturers have nacelle production plants within a 500-mile radius of Kansas.

Support for the wind industry can also be seen in our educational institutions. Several years ago, Cloud County Community College started a Wind Energy Technician program – one of just a handful nationally – to meet the growing demands of the wind industry. The program offers a two-year Associate of Applied



Science degree, as well as a one-year Certificate Program.

The Kansas Wind Applications Center at Kansas State University offers unique educational opportunities for students, and the Kansas Wind for Schools program encourages participating schools to incorporate wind energy education into their science curriculum.

Kansas is also home to a rapidly developing industrial cluster of firms specializing in composites and polymers, offering expertise and resources in the field of advanced materials research and production. Research and development support is available through resources such as the renowned National Institute for Aviation Research (NIAR) at Wichita State University, a recognized leader in the field of composites and advanced materials. Research on wind turbine blades has been conducted at NIAR using the institute's Fatigue and Fracture Lab, as well as wind tunnels for aerodynamic testing. Specialized composites-related training programs are offered at area universities and technical colleges covering production processes such as hand lay-up, vacuum bag/autoclave, resin transfer molding, spray-up and bulk molding compounds.

#### [2013 Kansas Wind Resources Map](#)

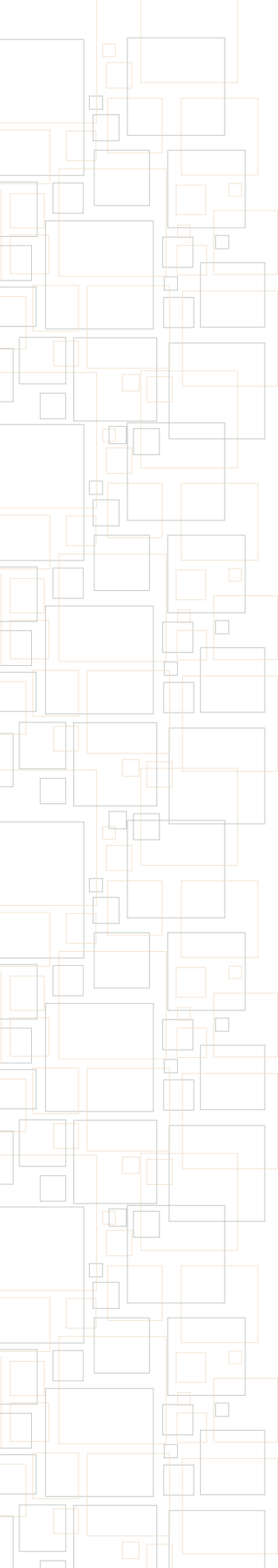
### RENEWABLE FUELS — BIOENERGY

Kansas ranks fourth in total biomass production, with companies benefiting from economical access to feedstock for bio-based fuels, as well as proximity to feedlots that serve as a market for the animal feed resulting from biofuel byproducts. With 3 million head of cattle on feed in southwest Kansas, biofuel plants can enjoy the cost savings of sending out distillers wet grains to nearby feedlots.

Kansas has 15 operating biofuel facilities with a combined permitted capacity exceeding 525 million gallons per year. Additional ethanol and biodiesel facilities are either in the process of receiving permits or in the construction phase. Abengoa Bioenergy, a leader in biofuel production, selected Kansas for the development of its first commercial-scale hybrid biomass plant. The company cited the significant supply of biomass and the strong state and local support for the project.

Kansas is also home to industry leader ICM, which has designed and built many of the nation's ethanol plants and was selected by the U.S. Department of Energy as one of four small-scale biorefinery companies to lead biomass-to-ethanol research efforts using innovative conversion technologies.

The state is investing in collaborative bioenergy research to bring cellulosic ethanol solutions to the marketplace using non-food sources such as switchgrass, corn fiber and sorghum. Other initiatives include the Kansas Bioenergy and Biorefining Center of Innovation, which unites key industry players such as Archer Daniels Midland with the world-class research and development efforts at the University of Kansas and Kansas State University. The Center for Environmentally Beneficial Catalysis at KU is also involved



in various research initiatives targeting biomass materials as alternative feedstocks for conversion into biofuels.

The State of Kansas offers a diverse portfolio of financial incentives to Kansas businesses and producers engaged in conventional and renewable energy production. State tax credits are available for projects that convert waste heat or biomass to energy or otherwise offset local power usage via renewable sources. Numerous development incentives, including incentive payments, income tax credits, sales tax exemptions, financial assistance for training and property tax exemptions are available to producers, retail dealers and individuals that utilize alternative energy sources.

### [2012 Kansas Ethanol and Biodiesel Plant Map](#)

## **SOLAR**

Kansas has a great solar rating, and international companies such as AGC Flat Glass, a world leader in the production of solar glass, have found the state to be an ideal location from which to serve the U.S. market. Companies also benefit from the state's transportation network, predictable utility costs and reliable utility services.

The state's strong workforce and customized training programs offer further advantages to solar equipment manufacturers and suppliers. Various educational institutions are creating specialized solar programs, including Johnson County Community College, which is developing a solar electric photovoltaic training program. Additionally, a \$20 million award from the National Science Foundation will support global climate change and renewable energy research in a statewide program that includes Kansas research universities. One of the key areas of research involves exploring the use of nanotechnology to harness solar energy.

## **TRANSPORTATION ADVANTAGES**

Whether by highway, rail or air, Kansas offers excellent transportation and marketing advantages for your business. Because we're central and because we've focused on building and maintaining an outstanding infrastructure, it's easier and cheaper to ship to and from Kansas. We're home to numerous production facilities, warehouses and distribution centers that have found shipping raw materials and finished goods is more profitable when you're located in the nation's heartland.

Kansas' strategic location, at the convergence of I-35 and I-70, places it at the crossroads of America. Our central location and excellent transportation network with access to interstate rail, trucking and air corridors put businesses within next-day freight service of 70 percent of the United States.

### **Highways**

Kansas ranks sixth for quality and access to transportation in all modes for getting products to market and for transporting individuals. We also rank third nationally in total road mileage with approximately 140,000 total road and street miles and over 10,000 highway miles. Thanks to our state's proximity to major markets, our transit times and shipping rates for common carriers can compete with any in the country. Kansas motor carrier regulations, covering truck and trailer size

and weight, mirror many federal guidelines.

### Rail Service

Kansas ranks in the top 10 in the United States in railroad mileage with almost 4,800 miles of track, 2.23 percent of all U.S. railroad miles. Our four Class I and 13 Class III secondary rail carriers ensure freight service to virtually anywhere in Kansas, since the countless tons of grain grown here have for decades mandated a comprehensive rail system.

Over 900 incorporated and unincorporated cities stand along Kansas' tracks. Many communities are served by more than one railroad, and businesses in several cities can take advantage of reciprocal switching agreements between railroads. The Kansas City area, a convenient first stop en route to all major marketing regions, ranks as the second leading rail center in the nation.

### Air Service

Kansas City International Airport (KCI) and the Wichita Mid-Continent Airport are the largest airports serving the state, providing businesses with immediate access to major markets nationwide. KCI serves as the primary commercial airport for a four-state area for both passenger and air cargo service. These two airports contain state-of-the-art cargo handling facilities, main-deck loaders capable of handling the world's largest freighter aircraft and an extensive highway system just minutes away to provide businesses with quick access to goods and markets.

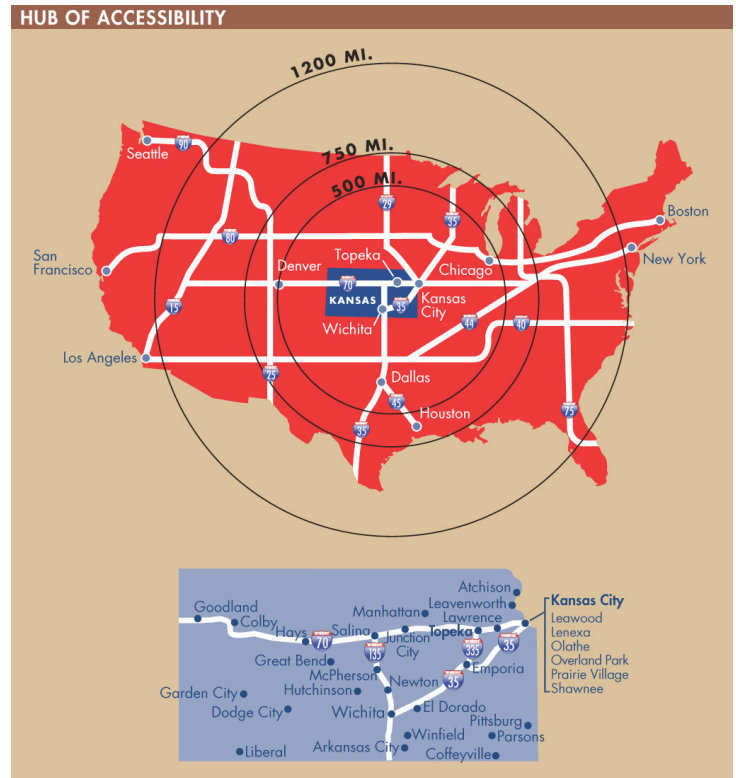
### Inland Waterways

The Port of Catoosa, an inland seaport located near Tulsa, Okla., is approximately 50 miles from the Kansas border. It is a year-round, economical alternative to other means of travel and is especially advantageous to businesses manufacturing large goods.

## SKILLED AND EDUCATED LABOR

One of the positive factors in the expansion of the Kansas economy is the Kansas worker. A highly motivated and well-educated workforce is ready to assist your firm. Though many of the state's 2.9 million citizens are concentrated in its metropolitan areas, firms locating in any region of the state will find a high-quality workforce ready to put its talents to work.

Kansas' education system is one of the best in the nation and a powerful factor



## Engineering for the World

The state's renewable energy industry is further strengthened by the significant cluster of world-renowned engineering leaders in the Kansas City metro area, including:

Black & Veatch

Shafer, Kline & Warren

Burns & McDonnell

Terracon Consultants

GBA

TranSystems Corporation

HNTB Companies

MRI Global

Olsson Associates

These companies are involved in wind farm development work, design and installation of major solar PV systems and various biomass initiatives. The engineering and design services sector is a multi-billion dollar industry in the Kansas City region. Kansas has consistently ranked in the top 10 for states educating scientists and engineers as a percentage of overall degrees.

contributing to the success of many businesses. Our education system has resulted in an adept, well-skilled and highly trainable labor force. The high school graduation rate and percentage of the population with a bachelor's degree are both well above the national average. Kansas ranks in the top third nationally for percent of adults with a college degree and average ACT score. Kansas' higher education system includes six Board of Regent's universities, 26 community and technical colleges statewide and one municipal college.

Kansas is also a right-to-work state, which has helped keep labor costs below the national average. The current union membership percentage in Kansas is 6.8 percent, well below the U.S. average. In addition, we have multiple workforce training programs and initiatives for companies new to Kansas or Kansas businesses needing to expand or restructure. Our training programs can offer direct financial assistance to train your workforce, and our workforce development professionals can assist in the recruitment of labor to staff your new business.

### COMPETITIVE UTILITY RATES

Kansas possesses a built-in advantage over other states when it comes to meeting your energy needs. With one of the largest natural gas fields in the world, Kansas is among the nation's leading producers of natural gas. Also, our statewide power costs are competitive with the national average.

### POSITIVE BUSINESS CLIMATE

In an ongoing effort to improve the state's business climate, Kansas lawmakers continue to find ways to reduce the cost of living and doing business in this

state. Living costs are relatively low in Kansas at 8.4 percent below the national average, making our state one of the most affordable in the nation. Kansas housing is affordable, too, with the median value of owner-occupied housing more than 26.1 percent below the national average. In addition, Kansas ranks 14th overall for business competitiveness based on ten key economic factors, including workforce, education and transportation.

## **KANSAS HAS A VARIETY OF INCENTIVE PROGRAMS FOR QUALIFIED COMPANIES INVOLVED IN ALTERNATIVE ENERGY.**

New! Business income tax exemption for LLCs, LLPs, Sub-Chapter S Corporations, Partnerships and Sole Proprietorships

Qualified new companies to Kansas can retain their payroll withholding tax for five to 10 years, depending on the number and wages of jobs brought to Kansas

Financial assistance to train a new workforce or retrain an existing workforce

Financial assistance for construction, remodel, furnishings and equipment

10 percent corporate income tax credit for new capital investment

100 percent personal property tax exemption on commercial machinery and equipment new to Kansas

100 percent sales tax exemption on purchases to construct, remodel, furnish and equip a facility

No inventory or franchise tax by state law

100 percent sales tax exemption on items that become part of a manufactured product or items consumed in production

Property tax abatement on real property for up to 10 years subject to community approval